FINDING OF NO SIGNIFICANT IMPACT

Desert View Improvements and Road Rehabilitation
Grand Canyon National Park

The National Park Service (NPS) proposes to redevelop Desert View as a transportation hub of the South Rim located near the east entrance to Grand Canyon National Park (GCNP). The proposed activities are part of a comprehensive effort to accommodate present and anticipated future visitation at Desert View while minimizing resource impacts and conflicts. Improvements at Desert View were outlined in the 1995 General Management Plan (GMP) for GCNP. Plans for these improvements were subsequently refined through a Value Analysis Study.

The proposed activities are needed because the existing facilities cannot adequately accommodate existing use or any future increases in visitation. Currently, all visitors entering or exiting GCNP via the east entrance must drive through the developed area at Desert View. The existing parking lot accommodates 140 vehicles, and during the peak summer months, the parking lot fills and overflow parking occurs along Desert View Drive. This creates unsafe conditions for visitors. Limited orientation facilities are available at Desert View, and there are no mass transit facilities. Roadways also need to be maintained in or returned to a serviceable condition.

In July 2002, the NPS prepared an *Environmental Assessment (EA) for Desert View Improvements and Road Rehabilitation*.

PREFERRED ALTERNATIVE

The preferred alternative would redevelop the Desert View visitor area to provide improved traffic circulation, fewer conflicts between pedestrians and motor vehicles, and improved visitor services while minimizing impacts to cultural and natural resources. The preferred alternative consists of the following:

- *Realignment of Desert View Drive***.** The roadway serving Desert View would be moved away from the visitor area and the rim. Approximately 1,705 lineal m (5,585 lineal feet) of asphalt roadways would be constructed or reconstructed. The beginning portion of the existing road to the maintenance area would be demolished to accommodate the road realignment. The area reclaimed would be 0.3 ha (0.7 acre).
- *Parking Lot*. A new parking lot would be constructed that would accommodate 430 cars, 22 RVs, and 15 buses. The parking lot was designed to accommodate the number of vehicles projected in the GMP for the year 2010. The parking lot would be divided into two separate areas, a car parking area covering 2.0 ha (4.9 acres) and an RV and bus parking area covering 1.0 ha (2.4 acres). The total area of asphalt would be about 2.9 ha (7.3 acres). The bus and RV parking area and approximately two-thirds (1.3 ha [3.3 acres]) of the passenger car parking area would be constructed initially. If the parking lot proves to be inadequate to accommodate future visitation at Desert View, the remainder of the lot would be constructed when needed.

- *Entrance Station***.** The proposed entrance station would be located approximately 0.4 km (0.25 mile) south of the existing entrance station. The new entrance station would have two entry lanes, one exit lane, two parking spaces for employees, two booths serving the entry lanes, and a building providing restrooms and storage space. The buildings would total approximately 46 square meters (500 square feet). Approximately 0.6 ha (1.5 acres) would need to be cleared of vegetation to provide for the footprint of the new entrance station. Utilities for the entrance station would be located underground and would connect to the new water tank and adjacent utilities north of the proposed location for the entrance station. These utilities would include electricity, communications/data, and water lines. Utilities would be installed in approximately 305 m (1,000 feet) of trench. The trench would be 1 meter (3 feet) wide, and the utility corridor would be 3 m (10 feet) wide to accommodate equipment and sidecast materials. Where the utility corridor passes through wooded areas, the route of the trench would be designed to avoid trees and eliminate sight lines. An approximately 2,840-liter (750-gallon) septic tank and an approximately 18.6-square-meter (200-square-foot) leach field would serve the restroom facilities at the entrance station. A propane tank would be located near the entrance station and underground lines would provide propane to the buildings. The relocation of the entrance station would include the demolition of the existing entrance station booths and the associated road between the new bypass road and the road to the maintenance area. This area would be revegetated and recontoured to follow the natural slope.

- *Removal of Structures West of Existing Water Tank***.** Structures just west of the existing water tank would be relocated or demolished to accommodate the proposed parking lot. Ten non-historic trailer/RV pad sites for concessioner employees would be relocated to the NPS staff housing area. A non-historic concessionaire utility shed would be demolished and replaced with a new structure in the maintenance area. An existing building that does not contribute to the historic district would be relocated to the housing/maintenance area.

- *Shuttle Loop and Transit Shelter***.** A shuttle bus loop and transit shelter would be constructed near the east end of the existing parking lot. The bus shuttle loop and transit shelter would provide a clearly delineated, comfortable, and safe pick-up/drop-off area. The transit shelter would consist of two open-air structures with lighting, seating, and information panels. Utilities connecting the transit shelter would be underground.

- *Orientation Facility***.** Space surrounding three existing structures at the north end of the proposed parking area would be converted to an orientation plaza with 24-hour information and interpretive kiosks. The existing structures would be adaptively reused for administrative/management support and possibly restrooms. Alternatively, a new restroom may be constructed nearby. One of the existing structures that would be adaptively reused is a historic house that needs to be retained because it contributes to the historic setting of Desert View. Converting these structures to visitor or administrative/management facilities would entail modifications for accessibility, upgrade of utilities, and upgrade of interior and exterior finishes. Utilities would be rerouted underground. The existing Trading Post would also be converted to visitor services and a Grand Canyon Association (GCA) bookstore. The existing contact station would be adaptively reused for visitor services or administrative support.

- *Visitor Services/Management Support Building***.** The existing contact station (Building No. 41) would be adaptively reused as a visitor services or management support building. The existing contact station needs to be retained because it contributes to the historic setting of Desert View. Converting the contact station to other uses would entail modifications for accessibility and upgrading utilities, mechanical systems, and interior and exterior finishes.
- *Bike Rental Facility***.** A bike rental facility would be provided at Desert View. An existing building would be adaptively reused as the bike rental facility, or a new facility would be constructed at the current intersection of Desert View Road and the west exit of the current parking lot. The facility would consist of a building and open-air structures. Utilities would be connected to the bike rental facility and could include electricity, communications/data, water, and sewer.
- *Picnic Facilities***.** Picnic tables would be dispersed throughout the pedestrian area between the new parking lot and the Watchtower.
- *Trading Post***.** The gift shop/deli (Trading Post) would be relocated to the facility that currently houses the General Store. A new building would be constructed to house the store, and the existing Trading Post building would be converted to visitor services and a GCA bookstore.
- *Existing Restroom***.** An existing restroom (Building No. 1410) adjacent to the General Store would be demolished.
- *Pedestrian Area***.** The existing parking lot would be converted to a pedestrian and landscape area. In addition, the existing portion of Desert View Drive between the western entrance to the parking lot and the new bypass road would be converted to a walkway/bike path. The conversion of these areas to pedestrian areas would entail the demolition of portions of the parking area, revegetation, and landscaping.
- *Trails***.** Social trails that exist along the rim in both directions from Desert View would be formalized and improved.
- *Utilities***.** In conjunction with the construction of the bypass road, existing electric and telephone overhead utility lines would be relocated underground within the existing, cleared power line corridor from Desert View to about 229 m (750 feet) southwest of the new bypass road. Electrical and telephone lines would be placed in separate conduits and buried in the same trench. Within Desert View, utilities would be relocated and connected to infrastructure as necessary. Existing utilities would be placed underground in approximately 915 m (3000 feet) of trench. The trench would be 1 meter (3 feet) wide, and the utility corridor would be 3 m (10 feet) wide to accommodate equipment and sidecast materials.
- *Propane Tank***.** An existing propane tank at the site of the proposed parking lot would be removed. Individual propane tanks would be installed adjacent to buildings requiring propane service.
- *Water Tank*. The existing water tank and an associated utility building are within the footprint of the proposed car parking lot and would need to be relocated. A new water tank would be constructed near the existing utility corridor approximately 229 m (750 feet) south of the new road bypass. The tank would be 4.6 m (15 feet) high and 12.2 m (40 feet) in

diameter. A new building containing water pumps and related utilities would be constructed adjacent to the new water tank. The existing water tank and its associated utility building would then be demolished.

- *Communications Mast*. An existing antenna and its support buildings are within the footprint of the proposed car parking lot and would need to be relocated. A new communications mast would be constructed near the new water tower, and the existing antenna would be demolished. The existing support buildings for the antenna would be relocated to the new site. The communications equipment provides radio communication to the main village area and requires direct line of sight to Village communications facilities. This direct sighting would determine the ultimate height of the antenna. It would be approximately 9.1 m (30 feet) in height, comparable to the height of existing power poles in the area.
- *Staging Area and Batch Plant***.** A main contractor staging area, which may include an asphalt or concrete batch plant, would be located in a previously disturbed area. The existing helibase, which is located along Desert View Drive approximately 1.5 km (0.9 mile) south of Desert View, would be offered to the contractor for this purpose. Upon completion of the project, the staging area would be returned to pre-construction conditions.
- *Tram***.** A small, electric tram would traverse a one-way loop around the perimeter of the parking lot and to stops near the transit shelter and the walkway to the Watchtower. The path for the tram would be approximately 12 feet wide to accommodate both the tram and pedestrians safely. The tram would accommodate approximately 12 passengers. A maintenance building for the tram would be needed. A new building would be constructed in the vicinity of the new bus parking and would occupy approximately 49 square meters (525 square feet), one of the existing buildings (Building No. 915) would be adaptively reused for tram maintenance, or Building No. 915 would be replaced with a building of similar footprint and size that would be used for tram maintenance.
- *Store***.** A new building would be constructed between the proposed shuttle bus loop and the existing gas station to house the General Store. A service road would be constructed extending from the existing service road to the new building. Walkways would be constructed from the transit and pedestrian area to the new building. Utilities would be connected to the new store and could include electricity, communications/data, water, and sewer.
- *Heli-pad***.** The location of the existing entrance station booths would be converted to a helicopter landing pad. This heli-pad would be used only for emergencies
- *Road Rehabilitation***.** Three sections of Desert View Drive and one section of the south entrance road would be rehabilitated. Desert View Drive would be rehabilitated from milepost (MP) 247 to MP 253, from approximately 183 m (600 feet) west of the Tusayan Museum intersection to the Desert View developed area (4.8 km [3.0 miles]), and between Desert View and the eastern Park boundary (6.4 km [4.0 miles]). Approximately 1.5 km (0.9 mile) of overlook access and parking areas (Navajo Point, Lipan Point, and No Name Overlook) and the 0.5 km (0.3 mile) of the Tusayan Museum access road would also be rehabilitated. Approximately 8.2 km (5.1 miles) of the south entrance road between the Park boundary and the turn-off to Desert View would be rehabilitated.

Road rehabilitation would consist of pulverizing the existing pavement and resurfacing with new pavement. In a few locations, where the roadway is in better condition, rehabilitation would consist of spot repair followed by overlay of the existing surface. Asphalt would be placed to provide a consistent lane width of 3.4 m (11 feet) and a shoulder width of 0.6 m (2 feet), where feasible. Where 2-foot wide shoulders are not feasible, 0.3-m (1-foot) shoulders would be created. These activities may result in the widening of the road in some areas by as much as 0.6 m (2 feet). At the eastern Park boundary, the existing parking area at the entrance sign would be enlarged to accommodate six passenger vehicles and one RV or bus. The entrance sign would also be replaced. Where parking areas are rehabilitated, provisions would be made for handicapped access. All work would occur within the existing roadway prism (area disturbed by earlier roadway construction).

MITIGATION MEASURES

The following mitigation measures have been selected to minimize, reduce, or eliminate impacts of the preferred alternative:

- Contractors working in the Park are given orientation concerning proper conduct of operations. This orientation is provided in both written form and verbally at a preconstruction meeting. This policy will continue on proposed projects. Orientation topics will include:
    - Wildlife should not be approached or fed.
    - Collecting of any Park resources, including plants, animals, and historic or prehistoric materials, is prohibited.
    - Contractor must have a safety policy in place and follow it.
    - Other environmental concerns and requirements will be addressed, including relevant mitigation measures listed below.
- The staging area for the construction office (a trailer), construction equipment, and material storage will be located in previously disturbed areas near the project site. All staging areas will be returned to pre-construction conditions once construction is complete. Standards for this, and methods for determining when the standards are met, will be developed in consultation with the Park Restoration Biologist.
- Construction zones will be fenced with construction tape, snow fencing, or some similar material before any construction activity. The fencing will define the construction zone and confine activity to the minimum area required for construction. All protection measures will be clearly stated in the construction specifications, and workers will be instructed to avoid conducting activities beyond the construction zone as defined by the construction zone fencing.
- To minimize soil erosion, the following mitigation measures will be implemented:
    - Standard erosion control measures such as silt fences, sand bags, or equivalent control methods will be used to minimize any potential soil erosion.
    - Any trenching operations will be by rock saw, backhoe, trackhoe, and/or trencher, with excavated material side-cast for storage. After trenching is complete, bedding material will be placed and compacted in the bottom of the trench and the utility lines installed in the bedding material. Back filling and compaction will begin immediately after the utility lines are placed into the trench, and the trench surface will be returned to pre-

construction contours. All trenching restoration operations will follow guidelines approved by Park staff. Compacted soils will be scarified and original contours reestablished.

- A Salvage and Revegetation Plan will be developed for the project by a landscape architect or other qualified individual, in coordination with the Park Restoration Biologist. Any revegetation efforts will use site-adapted native species and/or native seed, and Park policies regarding revegetation and site restoration will be incorporated into the plan. The plan will consider, among other things, the use of native species, plant salvage potential, exotic vegetation and noxious weeds, and pedestrian barriers. Policy related to revegetation will be referenced in NPS Management Policies (NPS 2001; Chapter 9).

- To minimize visual impacts, the following mitigation measures will be implemented:
  - Clearing of forested areas will be limited to the immediate construction zone associated with trenching and other construction. Snow fencing (nylon webbed fencing material) will surround the established construction zone to minimize damage to vegetation and other features by construction equipment and to define access to the construction site.
  - Alignment of utility corridors will be located where possible through existing open clearings in forested areas. Trench locations will be placed perpendicular to roadways to create as short a duration of viewing time for visitors to the disturbed area as possible.
  - Trenching for underground utilities will be limited as much as possible to a 10-foot wide fenced construction zone. Clearing of trees and understory will be feathered to blend with natural openings in the forest canopy.
  - The natural landscape as a color palette for covering metal surfaces will be used to blend these manmade features into the landscape.
- To prevent the introduction and minimize the spread of exotic vegetation and noxious weeds, the following mitigation measures will be implemented:
  - Existing populations of exotic vegetation at the construction site will be treated prior to construction activities.
  - All construction equipment that would leave the road (e.g., bulldozers and backhoes) will be pressure washed prior to entering the Park.
  - The location of the staging area for construction equipment will be Park-approved and treated for exotic vegetation.
  - Parking of vehicles will be limited to existing roads or the staging area.
  - Any fill, rock, or additional topsoil needed will be obtained from a Park-approved source.
  - All areas disturbed by construction will be revegetated using site-adapted native seed and/or plants.
  - Monitoring and follow-up treatment of exotic vegetation will occur for 2 to 3 years after construction is completed.
- To protect any unknown or undiscovered threatened, endangered, or special status species, the construction contract will include provisions for the discovery of such. These provisions will require the cessation of construction activities until Park staff evaluate the project impact on the discovery and will allow modification of the contract for any protection measures determined necessary to protect the discovery.

- To protect the California condor, the following mitigation measures will be implemented:
    - Prior to the start of a construction project, the Park will contact personnel monitoring California condor locations and movement within the Park to determine the locations and status of condors in or near the project area.
    - If a condor occurs at the construction site, construction will cease until it leaves on its own or until permitted personnel employ techniques that result in the individual condor leaving the area.
    - Construction workers and supervisors will be instructed to avoid interaction with condors and to contact the appropriate Park or Peregrine Fund personnel immediately if and when condor(s) occur at a construction site.
    - The construction site will be cleaned up at the end of each day that work is being conducted (i.e., trash disposed of, scrap materials picked up) to minimize the likelihood of condors visiting the site. Park condor staff will complete a site visit to the area to ensure adequate clean-up measures are taken.
    - To prevent water contamination and potential poisoning of condors, a vehicle fluid-leakage and spill plan will be developed and implemented for this project. This plan will be reviewed by the Park biologist for adequacy in addressing condors.
    - If a new structure occurs on the rim or above tree line in other areas, there may be a need to install condor deterrent devices on the structure. This will be evaluated on a case-by-case basis by the Park wildlife biologist.
    - If non-nesting condors occur within 1 mile of the project area, blasting will be postponed until condors leave or are hazed by permitted personnel.
    - If condor nesting activity is known within 1 mile of the project area, then blasting activity will be restricted during the active nesting season. The active nesting season is February 1 to September 30. These dates may be modified based on the most current information, in consultation with the Park biologist and the U.S. Fish and Wildlife Service (USFWS).
    - If condor nesting activity is known within 0.5 mile of the project area, then light and heavy construction in the project area will be restricted during the active nesting season. The active nesting season is February 1 to September 30. These dates may be modified based on the most current information, in consultation with the Park biologist and the USFWS.
- To protect the Mexican spotted owl, the following mitigation measures will be implemented:
    - If a construction project occurs within a Protected Activity Center (PAC) with no known nest site, then all construction activity will be restricted to the non-breeding season (September 1 – February 28). However, if the project in a PAC is at least 0.8 km (0.5 mile) from known nest sites and the project does not include blasting, then the project can be implemented during the breeding season. The breeding season is March 1 – August 31.
    - If a construction project outside of PACs occurs within 1.6 km (1 mile) of a known PAC nest or roost site, the boundary of a PAC where the nest or roost site is not known, or unsurveyed restricted, protected, or predicted MSO habitat, then all blasting in that project area will be restricted to the non-breeding season (September 1 – February 28).
    - If a construction project outside of PACs occurs within 0.8 km (0.5 mile) of a known PAC nest or roost site, the boundary of a PAC where the nest or roost site is not

known, or unsurveyed restricted, protected, or predicted MSO habitat, then light and heavy construction activity in that project area will be restricted to the non-breeding season (September 1 – February 28).

- Project areas that contain sentry milk-vetch habitat will be surveyed for that species well in advance of project implementation. These areas include the Desert View to Tusayan Museum road rehabilitation project and the Park Boundary to Desert View road rehabilitation project. The specific survey schedule will be developed in consultation with the Park biologist. If sentry milk-vetch is found within the project area, further Section 7 consultation will be initiated with the USFWS.
- The following mitigation measures will be implemented to minimize the impacts of construction activities on the visitor experience:
    - Unless otherwise approved by the Park, construction activities will not occur on Saturdays, Sundays, or holidays to minimize disruption to visitors during peak days.
    - Traffic in any one direction will not be stopped for more than 15 minutes to minimize disruption to traffic flow.
    - Unless otherwise approved by the Park, construction activities will be restricted to 8:00 am to 6:00 pm in the summer (May 1- September 30) and to 9:00 am to 5:00 pm during the rest of the year.
- To minimize the impacts of construction activities on cultural resources, the following mitigation measures will be implemented:
    - NPS archaeologists have completed surveys for archaeological resources within the area of proposed construction. Approved data recovery excavations of all archaeological sites identified in the project area anticipated to be impacted by project construction will be carried out prior to development activities. The NPS will consult with the Arizona State Historic Preservation Office (SHPO) and concerned Native American tribal officials regarding appropriate mitigation requirements. Consultation will be carried out in accordance with regulations of the Advisory Council On Historic Preservation implementing Section 106 of the National Historic Preservation Act and the 1995 Programmatic Agreement regarding the GMP EIS for Grand Canyon National Park. Mitigation will consist of archaeological data recovery excavations in accordance with approved federal and state standards and guidelines. Archaeological monitoring during construction may also be recommended as a further mitigation measure.
    - Should presently unidentified archeological resources be discovered during the course of the project, work in that location will stop until the resources are properly recorded by an NPS archeologist and evaluated under the eligibility criteria of the National Register of Historic Places. If (in consultation with the Arizona SHPO) the resources are determined eligible, appropriate measures will be implemented either to avoid further resource impacts or to mitigate their loss or disturbance. In compliance with the Native American Graves Protection and Repatriation Act of 1990, the NPS will also notify and consult concerned tribal representatives for the proper treatment of human remains and funerary and sacred objects should these be discovered during the course of the project.
    - All undertakings for which 106 consultation has not already been conducted that affect historic buildings and structures will be carried out in accordance with the

Secretary of the Interior's Standards for the Treatment of Historic Properties and other applicable NPS cultural resources policies and guidelines.

- To minimize the impacts of construction on air quality, the following actions will be taken:
  - If the contractor chooses to locate an asphalt or concrete batch plant within the park, it will use propane, rather than diesel fuel.
  - To reduce entrainment of fine particles from hauling material, sufficient freeboard will be maintained and loose material loads (aggregate, soils, etc.) will be tarped if transported across Desert View Drive (South Entrance to Desert View).
  - To reduce tailpipe emissions, construction equipment will not be left idling any longer than is necessary for safety and mechanical reasons.
  - To reduce construction dust in the short term, water will be applied to problem areas. Equipment will be limited to the fenced project area to minimize soil disturbance and consequent dust generation.
  - Landscaping and revegetation will control long-term soil dust production. Mulch and the plants themselves will stabilize the soil and reduce wind speed/shear against the ground surface.
- To minimize potential impacts to water quality, the following mitigation measures will be implemented:
  - A storm water pollution prevention plan (SWPPP) will be developed by the contractor and approved by the Park prior to any ground-disturbing activities. All National Pollutant Discharge Elimination System (NPDES) requirements will be met.
  - Standard erosion control measures such as silt fences, sand bags, or equivalent control methods will be used to minimize any potential sediment delivery to streams.

ALTERNATIVES CONSIDERED

GCNP developed alternatives from key issues and objectives noted in Chapter One of the EA. The EA evaluated three alternatives: the no-action alternative (Alternative A), the GMP alternative (Alternative B), and the preferred alternative (Alternative C) as described above. In developing alternatives, some actions were considered and dismissed; these are summarized at the end of Chapter 2 of the EA.

Alternative A would maintain the existing condition at Desert View. The existing 140-vehicle parking lot would remain with overflow parking continuing to occur on Desert View Drive. No bypass road would be constructed and the entrance station would remain in the same location. Visitor services would remain the same with limited orientation. No transit facilities would be provided at Desert View, requiring visitors to drive to other destination points along the South Rim. No rehabilitation of roadways and parking areas would occur along Desert View Drive or the south entrance road.

Alternative B would implement improvements at Desert View as outlined in the GMP. Alternative B differs from Alternative C in the location of the entrance station and orientation, bike rental, and picnic facilities. Under Alternative B, the entire parking lot would be constructed regardless of visitor use. The General Store would remain in its current location, and the Trading Post function

would be relocated to a new building. The old Trading Post building would be demolished. There would be no tram or heli-pad facilities.

The preferred alternative was selected over Alternative A because it would allow GCNP to meet objectives set forth in the GMP and would provide a safer and more aesthetically pleasing experience for visitors to Desert View. The preferred alternative was selected over Alternative B because it calls for adaptive reuse of more buildings, requires less new construction, and provides for greater visitor safety through a flat location for the entrance station and the availability of a tram and heli-pad. Alternative C is also more flexible that Alternative B because the parking lot would be constructed in phases.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

Environmentally preferable is defined as "the alternative that will promote national environmental policy as expressed in the National Environmental Policy Act §101." Section 101 of the National Environmental Policy Act states that "…it is the continuing responsibility of the Federal Government to … (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice; (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

The preferred alternative (Alternative C) is the environmentally preferable alternative for the following reasons:

- Alternative C would provide safer and more aesthetically pleasing conditions for visitors to Desert View than would Alternative A.
- Alternative C would allow visitors using the widest variety of modes of transportation (bicycles, passenger vehicles, buses, RVs) to use Desert View with the fewest conflicts.
- Alternative C would result in greater visitor safety at the entrance station than would Alternative B.
- Alternative C would produce fewer undesirable consequences (garbage thrown over the rim) than would Alternative B.
- Alternative C would provide the greatest safety to visitors through the existence of an electric tram and a nearby heli-pad.
- Alternative C makes more use of existing buildings, adaptively reusing more of the buildings and calling for less new construction than Alternative B.
- Alternative C is more flexible than Alternative B because it proposes to construct the parking lot in phases. If additional parking is not needed after the initial construction, it will not be built.

WHY THE PREFERRED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse.
As fully discussed in the EA, the preferred alternative will not affect geology and topography; prime and unique agricultural land; air quality; water resources; floodplains; wetlands; special status species (except California condor, Mexican spotted owl, American peregrine falcon, and sentry milk-vetch); socioeconomic environment; environmental justice; and soundscape. The preferred alternative will affect the following:

Soils. The preferred alternative would have minor, site-specific, long-term, adverse impacts on the soil resource through compaction and displacement on a maximum of 6.3 ha (15.8 acres) at Desert View. There may also be negligible, beneficial, local, long-term impacts through a reduction in the creation of social trails. Road rehabilitation projects would occur within the existing road prism and would have no additional impact to soils. The cumulative effects of the preferred alternative, in combination with other past present, and reasonably foreseeable future actions, would be adverse, long-term, site-specific, and minor and beneficial, long-term, local, and negligible.

Visual Resources. Proposed actions under the preferred alternative would result in a greater amount of visual organization in the developed area at Desert View. This would be a moderate, beneficial, site-specific, long-term impact. A new water tank, communications tower, and utility corridor would be visible to alert visitors. This would be a minor, adverse, site-specific, long-term impact. The cumulative effects of the preferred alternative, in combination with other past present, and reasonably foreseeable future actions, would be minor, adverse, site-specific, and long-term.

Biotic Communities. A maximum of 6.3 ha (15.8 acres) of juniper/big sagebrush/pinyon pine habitat would be directly lost for the long term under this alternative. This adverse effect would be site-specific and minor. Adverse impacts to wildlife in the area would consist of disturbance, displacement to adjacent habitat, and possible direct mortality during construction. These effects would be local, short- and long-term, and negligible because they would occur in areas currently degraded due to high disturbance levels from existing developments, roads, utility corridors, and human use. Cumulative effects of the preferred alternative, in combination with other past, present, and reasonably foreseeable future actions, would be adverse, long-term, local or site-specific, and negligible to minor.

Exotic Vegetation and Noxious Weeds. Actions under the preferred alternative could have adverse, minor, local, long-term effects on exotic vegetation through an increase in the area of disturbed ground. Cumulative effects of the preferred alternative, in combination with other past, present, and reasonably foreseeable future actions, would also be adverse, minor, local, and long-term.

Special Status Species. The preferred alternative could affect the Mexican spotted owl and the American peregrine falcon through noise disturbance and alteration of foraging habitat. These effects would be local, long-term, adverse, and negligible to minor. The preferred alternative could affect the California condor through an increased likelihood of interactions with humans during construction. These effects would be short-term, negligible, local, and adverse. Because pre-construction surveys would be completed, adverse impacts to sentry milk-vetch would be negligible, site-specific, and long-term. Formalization of trails around Desert View may result in visitors adhering more strictly to the trails. This would reduce foot traffic in potential habitat for the sentry milk-vetch and could have a minor, long-term, beneficial, local effect on sentry milk-vetch.

The cumulative effects of the preferred alternative, in combination with other past, present, and reasonably foreseeable future actions, on Mexican spotted owls and peregrine falcons would be adverse, local, long-term, and minor to moderate. Cumulative effects on California condors would be short- and long-term, negligible, local, and adverse. Cumulative effects on sentry milk-vetch would be similar in type, context, duration, and intensity to those described above for the preferred alternative.

The NPS completed a *Parkwide Construction Program Biological Assessment* (BA), which analyzed the effects of several construction activities, including those at Desert View and the road rehabilitation projects, on the Mexican spotted owl, California condor, bald eagle, and sentry milk-vetch. The BA determined that the proposed action *MAY AFFECT, BUT IS NOT LIKELY TO ADVERSELY AFFECT* the Mexican spotted owl, California condor, bald eagle, and sentry milk-vetch. The USFWS concurred with these findings on July 9, 2002.

Visitor Experience. The preferred alternative could have adverse, short-term, local, minor effects on the visitor experience by causing short traffic delays. The preferred alternative would also have the moderate, long-term, beneficial, local effects of reducing traffic congestion and parking problems and providing a more open and natural overlook area, a full range of visitor services in a central location, and an efficient transit system. The cumulative effects of the preferred alternative, in combination with other past, present, and reasonably foreseeable future actions, would be adverse, minor, local, and short-term and beneficial, minor to moderate, local, and long-term.

Cultural Resources. No ethnographic resources were identified that would be affected by the preferred alternative. Implementation of the preferred alternative would have long-term, moderate, beneficial, site-specific impacts on the Desert View Watchtower Historic District by removing non-contributing buildings, adaptively using and rehabilitating other contributing buildings, and removing the existing parking area to provide a landscaped buffer area enhancing the setting of the Watchtower. Although historic circulation patterns would be altered to facilitate the proposed site design configuration, the spatial orientation of the site would remain largely intact, and adverse impacts on the cultural landscape would be minor, site-specific, and long-term. Effects on archaeological sites would be mitigated by data recovery, and effects would be minor, long-term, site-specific, and adverse. The cumulative effects of the preferred alternative, in combination with other past, present, and reasonably foreseeable future actions, on historic resources and cultural landscapes would be both adverse and beneficial, minor to

moderate, site-specific, and long-term. Cumulative effects on archaeological resources would be minor, site-specific, adverse, and long-term. After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR Part 800.5, *Assessment of Adverse Effects*), Grand Canyon National Park concludes that the implementation of the preferred alternative would have *no adverse effect* on archeological and historic resources. Consultation with the SHPO was completed on August 26, 2002.

Park Operations. The preferred alternative would result in improved and expanded facilities and would have moderate, local, long-term, and both adverse and beneficial effects on park operations. The cumulative effects of the preferred alternative, in combination with other past, present, and reasonably foreseeable future actions, on park operations would be moderate, long-term, local, and both adverse and beneficial.

Degree of effect on public health or safety.
The preferred alternative would have moderate, beneficial effects on the health and safety of the public through a reduction in conflicts between motor vehicles and pedestrians, availability of an electric tram, and a nearby location of a heli-pad for visitors at Desert View experiencing medical emergencies.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
As discussed in the Environmental Assessment, implementation of the preferred alternative will not affect floodplains and prime and unique farmlands. No wild and scenic rivers will be affected by implementation of the preferred alternative. No ecologically critical areas, including critical habitat for threatened, endangered, or proposed species, will be adversely affected by the implementation of the preferred alternative. Implementation of the preferred alternative would result in a "may affect, not likely to adversely affect" determination for threatened, endangered, or sensitive species. Implementation of the preferred alternative would result in a "no adverse effect on archaeological resources, historic resources, and cultural landscape" determination in accordance with the requirements of Section 106 of the National Historic Preservation Act. Consultation with concerned tribal officials, Arizona SHPO, and USFWS has been completed.

Degree to which effects on the quality of the human environment are likely to be highly controversial.
There were no highly controversial effects identified during either preparation of the environmental assessment or the public review period.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.
There were no highly uncertain, unique, or unknown risks identified in the environmental assessment or during the public review period.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. The preferred

alternative neither establishes a precedent for future actions with significant effect nor represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.
Impacts of the preferred alternative identified in the environmental assessment were to soils, visual resources, biotic communities, exotic vegetation and noxious weeds, special status species, visitor experience, cultural resources, and park operations. As described in the EA, a variety of past, present, and reasonably foreseeable future actions have affected or may affect resources in the Desert View vicinity. However, the adverse impacts of the preferred alternative would be a relatively minor component of the overall negligible to moderate cumulative impacts because of the limited extent of the preferred alternative and the mitigation measures included with the preferred alternative. The NPS does recognize that park natural and cultural ecosystems are part of the greater Colorado Plateau ecosystem and would strive to integrate this project into other plateau planning efforts.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR Part 800.5, *Assessment of Adverse Effects*), Grand Canyon National Park concludes that the preferred alternative would have *no adverse effect* on ethnographic resources, traditional cultural properties, archaeological or historic resources, or cultural landscapes.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat.
The Mexican spotted owl, American peregrine falcon, California condor, and sentry milk-vetch are the only federally or state-listed species known to exist in the proposed project area. The Mexican spotted owl and American peregrine falcon could be affected by noise disturbance and alteration of foraging habitat. California condors could be affected by an increased likelihood of interaction with human, and the sentry milk-vetch could be affected by road and trail improvements in habitat for the sentry milk-vetch. The USFWS concurs that the preferred alternative may affect, but is not likely to adversely affect, federally listed species.

Whether the action threatens a violation of Federal, state, or local environmental protection law.
The preferred alternative violates no federal, state, or local environmental protection laws.

IMPAIRMENT OF PARK RESOURCES OR VALUES
In addition to determining the environmental consequences of the preferred and other alternatives, National Park Service policy (*Management Policies*, 2001) requires analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid, or to minimize to

the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of the park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the National Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. Impairment is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. An impact to any park resource or value may constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park; or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents.

Because there would be no major adverse impacts to any resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Grand Canyon National Park; (2) key to the natural or cultural integrity of the Park; or (3) identified as a goal in the Park's general management plan or other relevant National Park Service planning documents, there would be no impairment of Grand Canyon National Park's resources or values as a result of implementation of the preferred alternative.

PUBLIC INVOLVEMENT

December 8, 2000 - A public scoping letter was sent to the SHPO, the USFWS, the Arizona Game and Fish Department (AGFD), eight American Indian tribes, and 325 interested members of the public and other affected agencies. The letter solicited the public's concerns, viewpoints, and comments regarding the planning and implementation of the proposed project. The scoping period ended on January 31, 2001; however, comments received after that date were also considered. The comments received are summarized in the EA.

July 26, 2002 - The EA was released to the public with a comment closing date of August 27, 2002. A press release was issued, the EA was placed on the park's website, and letters announcing the open comment period went out to the public. Copies of the EA were sent to all the agencies and individuals that requested a copy during the initial public scoping process or during the open comment period.

July 26, 2002. A press release entitled "Grand Canyon National Park Seeks Public Comment on Environmental Assessment on Proposal for Improvements at Desert View" was released.

The NPS received three letters in response to the *Environmental Assessment for Desert View Improvements and Road Rehabilitation, Grand Canyon National Park, Coconino County, Arizona* (July 2002). Two of the letters were from private individuals and one was from a concessioner. The comment period ended August 27, 2002. An interdisciplinary team reviewed the letters and identified substantive comments. Substantive comments were considered to be comments which:

- question, with reasonable basis, the accuracy of information in the EA.
- question, with reasonable basis, the adequacy of EA.
- present reasonable alternatives other than those presented in the EA.
- cause changes or revisions in the proposal.

No substantive comments were received.

CONCLUSION

The preferred alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are negligible to moderate and could be short- to long-term in effect. There are no significant unmitigated adverse impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, known ethnographic resources, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects, or elements of precedence were identified. Implementation of the preferred alternative will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Approved: Karen P. Wade 9/04/02
Karen P. Wade
Intermountain Regional Director
Date

ERRATA SHEET
Finding of No Significant Impact
Desert View Improvements and Road Rehabilitation
Grand Canyon National Park

p. 87, Biotic communities, cumulative impacts, paragraph 2, replace Impacts to the biotic community from the greenway trail and the mass transit system cannot be evaluated because preliminary plans for these projects have not yet been developed with: The transit system is not expected to impact the biotic community because it would use the existing roadway. The greenway trail is proposed to follow existing social trails and utility corridors and would result in a negligible, site-specific, long-term loss of habitat. The greenway trail would result in increased human disturbance to adjacent habitat but may also result in a decrease in the formation of new social trails and disturbance to additional areas. These impacts would be local, long-term, and negligible because they would occur in areas currently degraded by disturbance from existing trails, utility corridors, and human use.

p. 94, seventh paragraph, first sentence, change Alternative B to: Alternative C.